4824

REMOVAL SITE EVALUATION RADIOLOGICAL CONTROL UNIT FACILITIES PROJECT SEPTEMBER 1993

10/19/93

DOE-FN/FERMCO
26
RSE

REMOVAL SITE EVALUATION

RADIOLOGICAL CONTROL UNIT FACILITIES PROJECT

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

U. S. DEPARTMENT OF ENERGY

SEPTEMBER, 1993

4824

REMOVAL SITE EVALUATION

RADIOLOGICAL CONTROL UNIT FACILITIES PROJECT

INTRODUCTION

The Radiological Control Unit Facilities Project is planned to upgrade change facilities and radiological control points at the FEMP to achieve full compliance with FERMCO's Radiological Controls Manual Implementation Plan. This work will also provide improved contamination and access controls, increased worker efficiency due to reductions in travel time for breaks, minimized waste generation through the use of reusable anti-Cs, and should result in fewer heat related stress incidents.

Control points will be set up at individual contamination compounds to be established in the former process area of the FEMP. These compounds will encompass individual buildings or in some cases groups of buildings. Each compound will be fenced to provide positive ingress and egress control. The compounds will have change facilities, some break areas, and provide controlled access to the radiologically controlled areas. Personnel without the proper level of training or protective clothing will not be able to enter the compound.

Mobile trailers will be used for these change facilities at FEMP locations where buildings or structures are being demolished and involve a substantial number of personnel (including contractors). For buildings with elongated clean-up/ demolition schedules and having fewer people working in the area, the change facilities will be portable, modular structures to be placed within the buildings themselves to serve as change facilities/radiological control points.

The specific project scope is comprised of the following items:

(1) Modular trailer complexes to be initially sited in the approximate locations shown in Figures 1-4 based on the projected schedule of remedial activities. Each complex will be comprised of four modular units which will provide access control points, mens and womens change facilities, restrooms, shower facilities, and a break room. Upon the completion of D&D work in one contamination compound, the use of trailers will allow relocation of change/break facilities to another work area to adequately support cleanup operations elsewhere.

(2) One single trailer located at Building 8 (Figure 5) to support long term operation of the facility. This will provide access control points and mens and womens change facilities for personnel assigned to ongoing building operations.

(3) Three portable containment structures to be utilized inside Buildings 5, 6, and 9 for access controls and change facilities in the approximate locations shown in Figures 6-8. A similar structure may also be acquired for Building 78. No running water or break facilities are included with these facilities. The structures will be used to support Safe Shutdown activities at these buildings that are preliminary to D&D activities.

(4) Installation of approximately 7,100 feet of permanent fencing will be undertaken to provide a barrier for positive access control into the established contamination compounds. Approximately 21 vehicle gates will be required to support the movement and control of equipment supporting project work at each compound.

The following wastes, determined to be non-hazardous by process knowledge, are expected to be generated from this project:

- Soil, gravel, and possible concrete for the installation of trailers, their anchoring devices, along with underground utility tie-ins. While a minimum amount of site preparation work is to be done, the amount of these wastes will depend upon specific details in contractor proposals/bids.

- Other non-soil debris (plastic, paper, rubber, cardboard packaging material; possible anti-Cs and miscellaneous project trash).

For Scope Item (3), no construction wastes will be generated for installation of the inside change facilities other than packaging materials and possible radiologically contaminated anti-Cs, gloves, clothing, etc. because the work will not involve any demolition/modifications of existing FEMP buildings.

This Removal Site Evaluation (RSE) has been completed by the Department of Energy (DOE) under authorities delegated by Executive Order 12580 under Section 104 of CERCLA and is consistent with Section 300.410 of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This RSE addresses the project involving all radiological control unit facilities. This RSE has been completed to support the decision as to whether the project conditions warrant a removal action. Controls implemented to support this construction activity are also presented in the RSE to demonstrate that the proposed construction will not cause deterioration of the existing site conditions.

SOURCE TERM

Consistent with 40 CFR 300.410(a), the RSE includes a removal preliminary assessment which is based upon readily available information as described in 40 CFR 300.410(c). A RCRA Determination/Radiological Characterization is underway to evaluate contaminant levels in the soil and debris from this project. Prior sampling in the production area has shown some chemical contamination (e.g metals, organics) above detectable levels in soil at the FEMP. Soil and gravel disturbed by this project represent a source of possible releases should they contain radiological or chemical contamination.

Areas in which the change facility trailers are to be placed have been characterized for general radiological contamination levels. These areas are primarily gravel covered with direct readings ranging from non-detectable to 1.5 kdpm/cm^2 beta-gamma and 0.2kdpm/cm^2 alpha and removable contamination levels less than MDA. If the gravel is removed or disturbed, the possibility exists for

exposing removable contamination to the environment and creating a pathway for the spread of contamination. Attachment 2 contains typical radiological surveys for the construction area.

EVALUATION OF THE MAGNITUDE OF THE POTENTIAL THREAT

Based on the above information, uranium and chemical contamination from displaced soil and gravel are the sources of threat in the event of a release. To manage the hazards and prevent the spread of contamination, the following controls, among others, will be implemented during construction of the new facilities.

- Excess soil from this project will be managed according to Removal Action 17 criteria. Soil will be backfilled, stockpiled or containerized in accordance with the management criteria specified in the Removal Action 17 work plan.
- Physical barriers will be positioned around the work area to prevent unauthorized access.
- Protective clothing and respiratory protection will be provided for workers, as required.
- Plastic tarpaulins and bags and appropriate containers will be readily available to contain radiologically contaminated materials, as required.
- Runoff controls will be established, as required.

All activities performed in support of this project will follow applicable site policies and procedures written to control such activities. These procedures include, but are not limited to, the following:

- SSOP-0044, "Management of Soil, Debris, and Waste from a Project"
- SP-P35-010, "Unrestricted Release of Materials from FMPC"
- Removal Action No. 17, "Improved Storage of Soil and Debris"

Excavation will not be allowed without appropriate radiological controls. During the installation of the change facilities, a Radiological Work Permit will be issued and the work area will be surveyed during and upon completion of work. Clean gravel or other suitable material (per Removal Action 17) will be used to cover any area above controlled area limits.

ASSESSMENT OF THE NEED FOR REMOVAL ACTION

Consistent with Section 40 CFR 300.410 of the NCP, the DOE shall determine the appropriateness of a removal action. Eight factors to be considered in this determination are listed in 40 CFR 300.415 (b)(2). Based on the data presented above, the following one of the eight criteria listed in the NCP applies:

- 40 CFR 300.415(b)(2)(v)
  Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released

Phase I of Removal Action 17 requires placement on and covering of contaminated soils with a heavy, nonpermeable tarpaulin. The tarpaulins will prevent the spread of contamination and resultant exposure to humans, animals or the food chain.

The potential of a release or migration of hazardous substances from these project sites is negligible. The low levels of contamination at these work sites also support the conclusion that any threat resulting from uranium contamination is negligible. Thus, while the above criteria can be applied to the Radiological Control Unit Facilities Project, it does not constitute the need for a removal action.

APPROPRIATENESS OF A RESPONSE

Based on the evaluation of all the above factors, it has been determined that a removal action will not be necessary and this project should be continued as a planned construction activity in support of the CERCLA remediation process at the FEMP. Furthermore, the controls planned in conjunction with this construction activity and management procedures established in accordance with Removal Action 17 are adequate to mitigate any hazards to human health, safety, and the environment and to prevent deterioration of existing site conditions.

4824

ATTACHMENT 1

LOCATIONS OF CHANGE TRAILERS AND FENCING

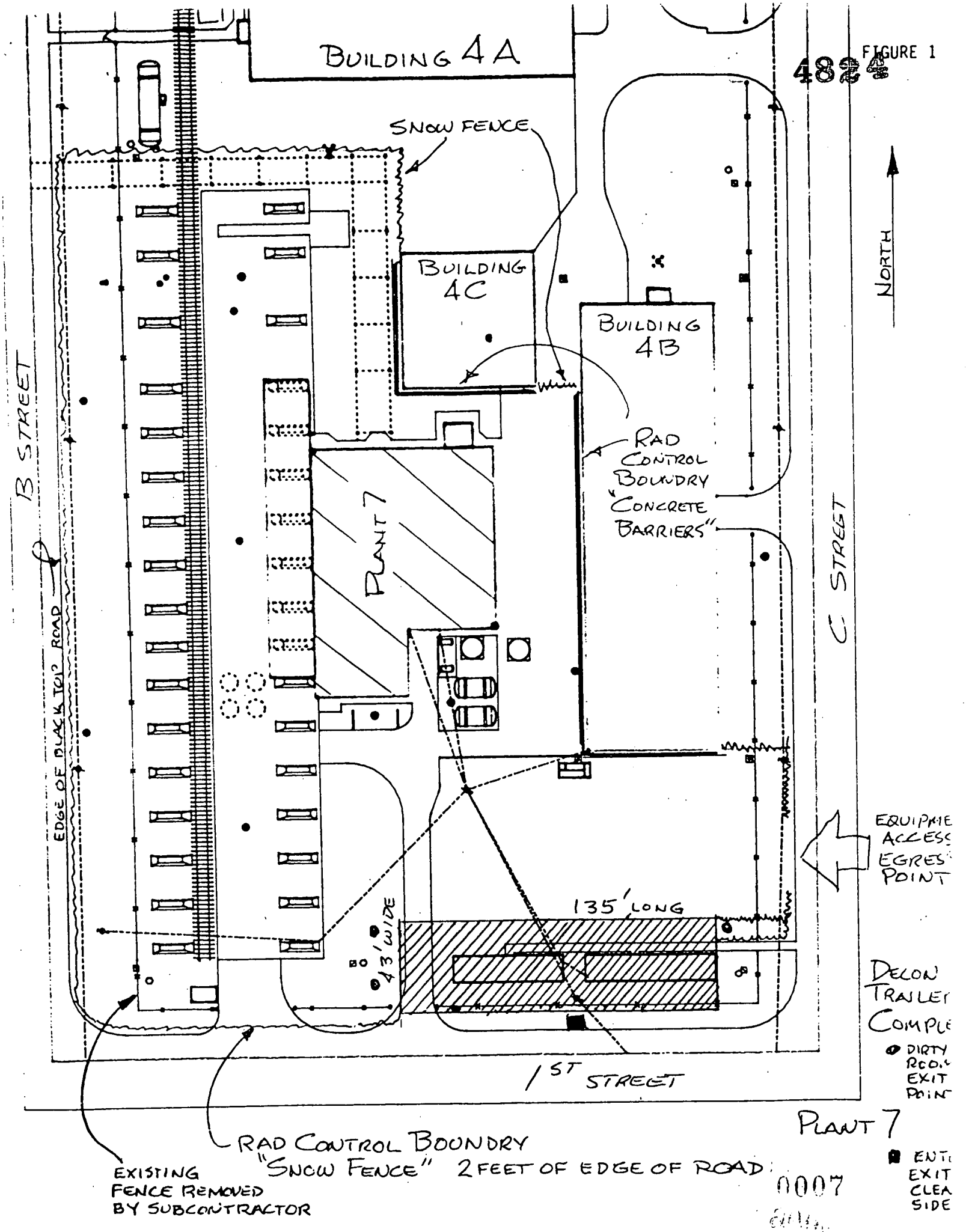
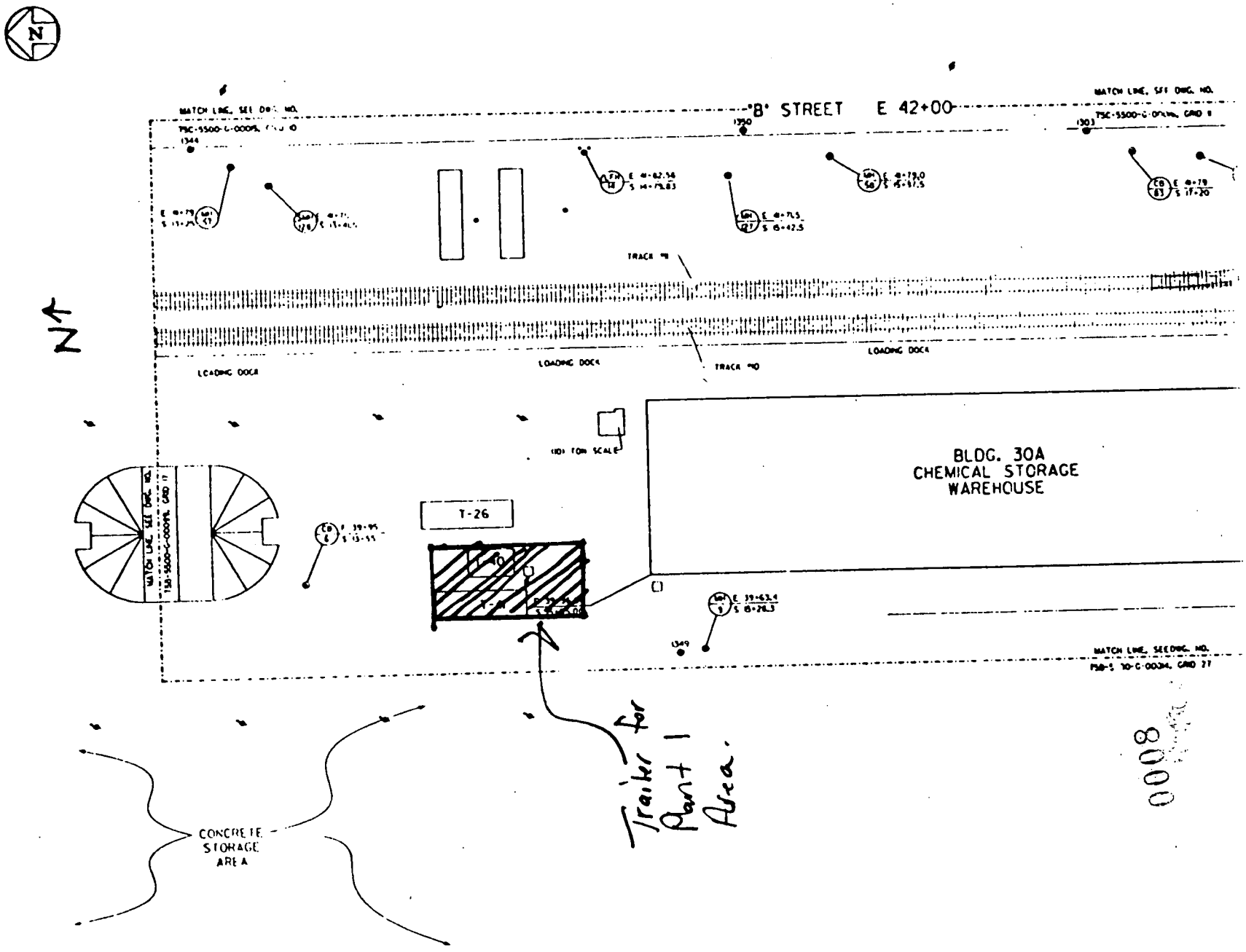


FIGURE 1
4824
BUILDING 4A
SNOW FENCE
BUILDING 4C
BUILDING 4B
NORTH
B STREET
EDGE OF BLACK TOP ROAD
RAD CONTROL BOUNDRY "CONCRETE BARRIERS"
PLANT 7
C STREET
EQUIPMENT ACCESS EGRESS POINT
135' LONG
43' WIDE
DECON TRAILER COMPLEX
DIRTY ROOM EXIT POINT
1ST STREET
PLANT 7
ENT EXIT CLEA SIDE
RAD CONTROL BOUNDRY
"SNOW FENCE" 2 FEET OF EDGE OF ROAD
EXISTING FENCE REMOVED BY SUBCONTRACTOR
0007

FIGURE 2



0008

FIGURE 3

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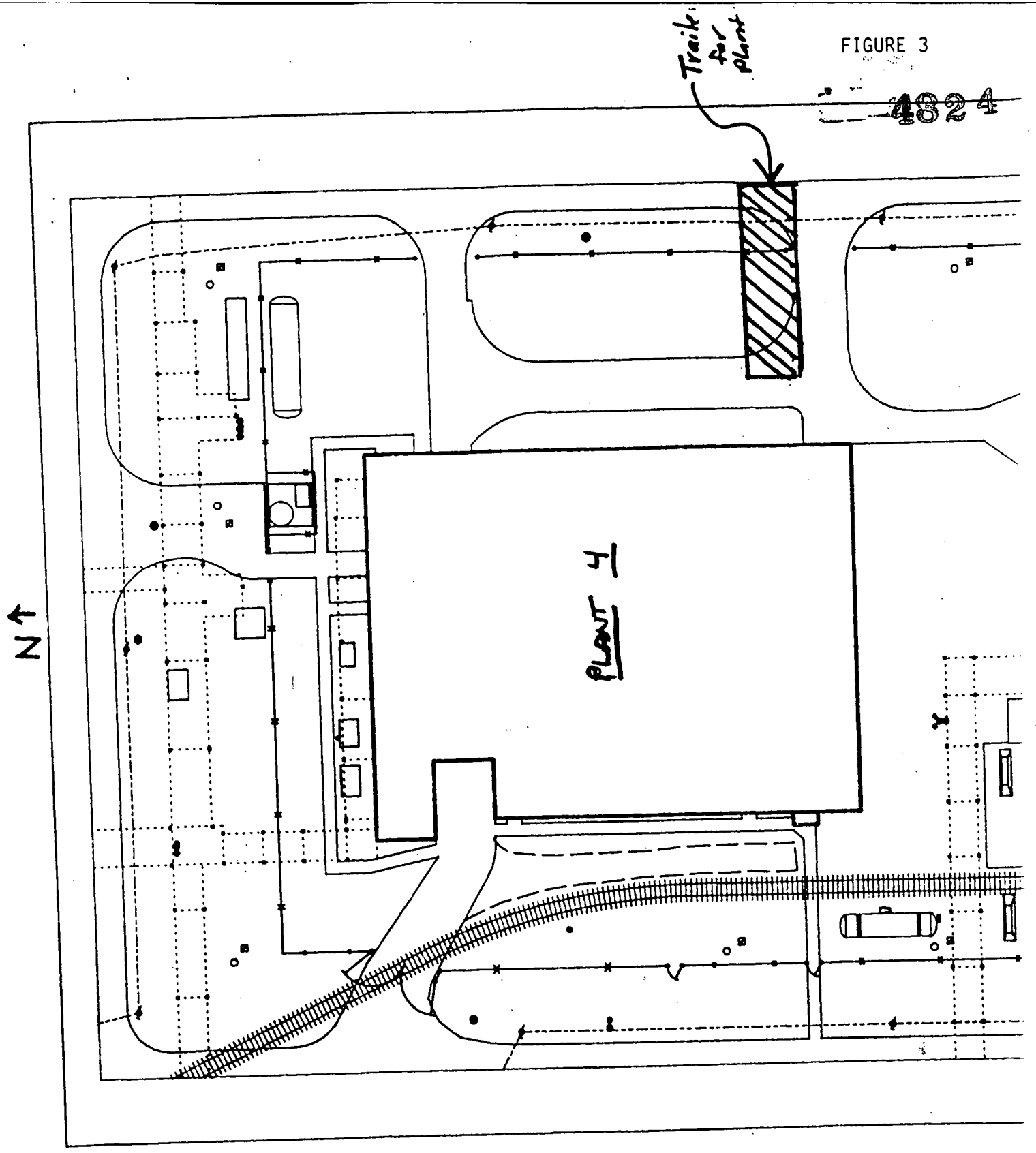
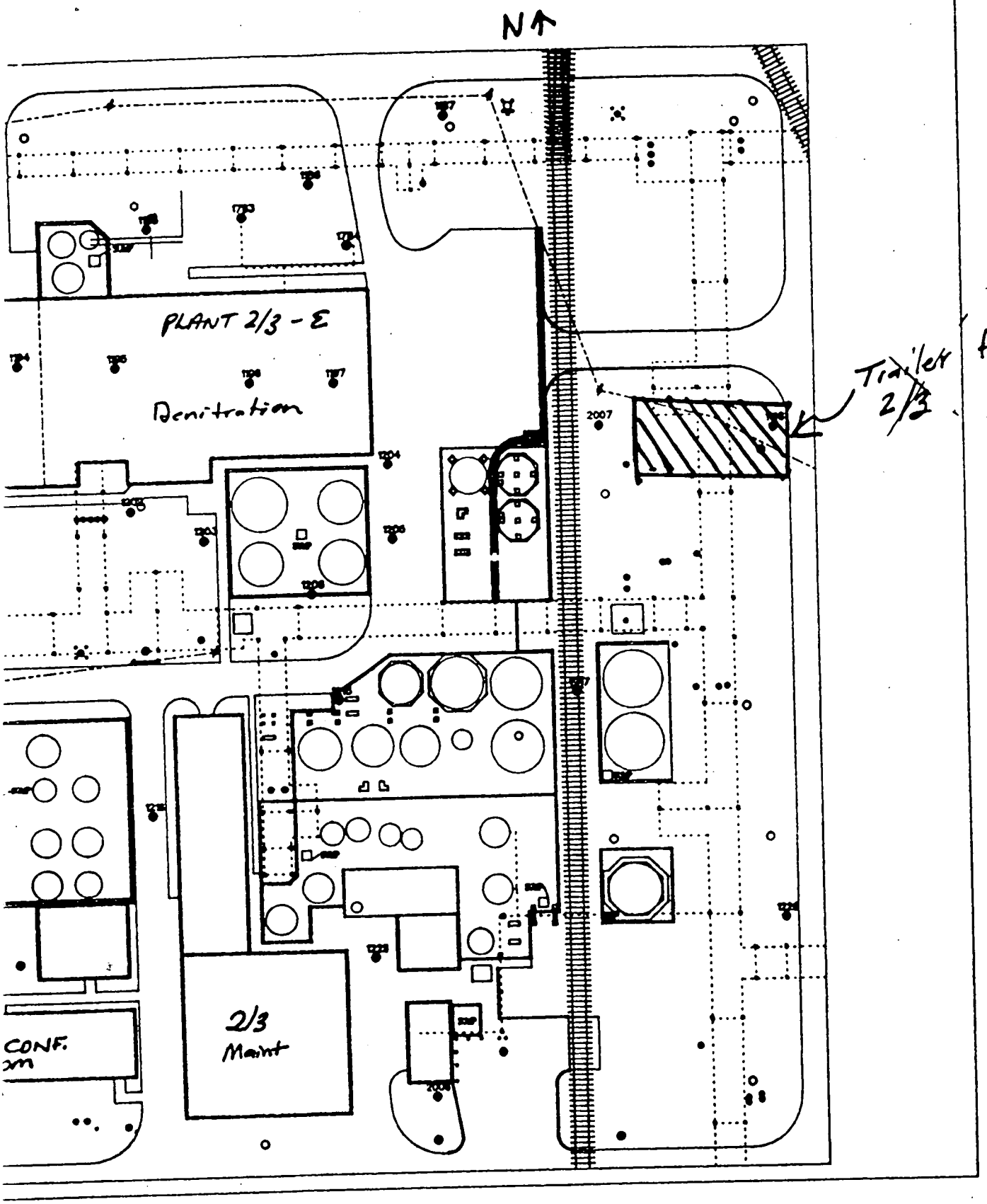


j:\grid13.dgn Sep. 2, 1993 06:40:24

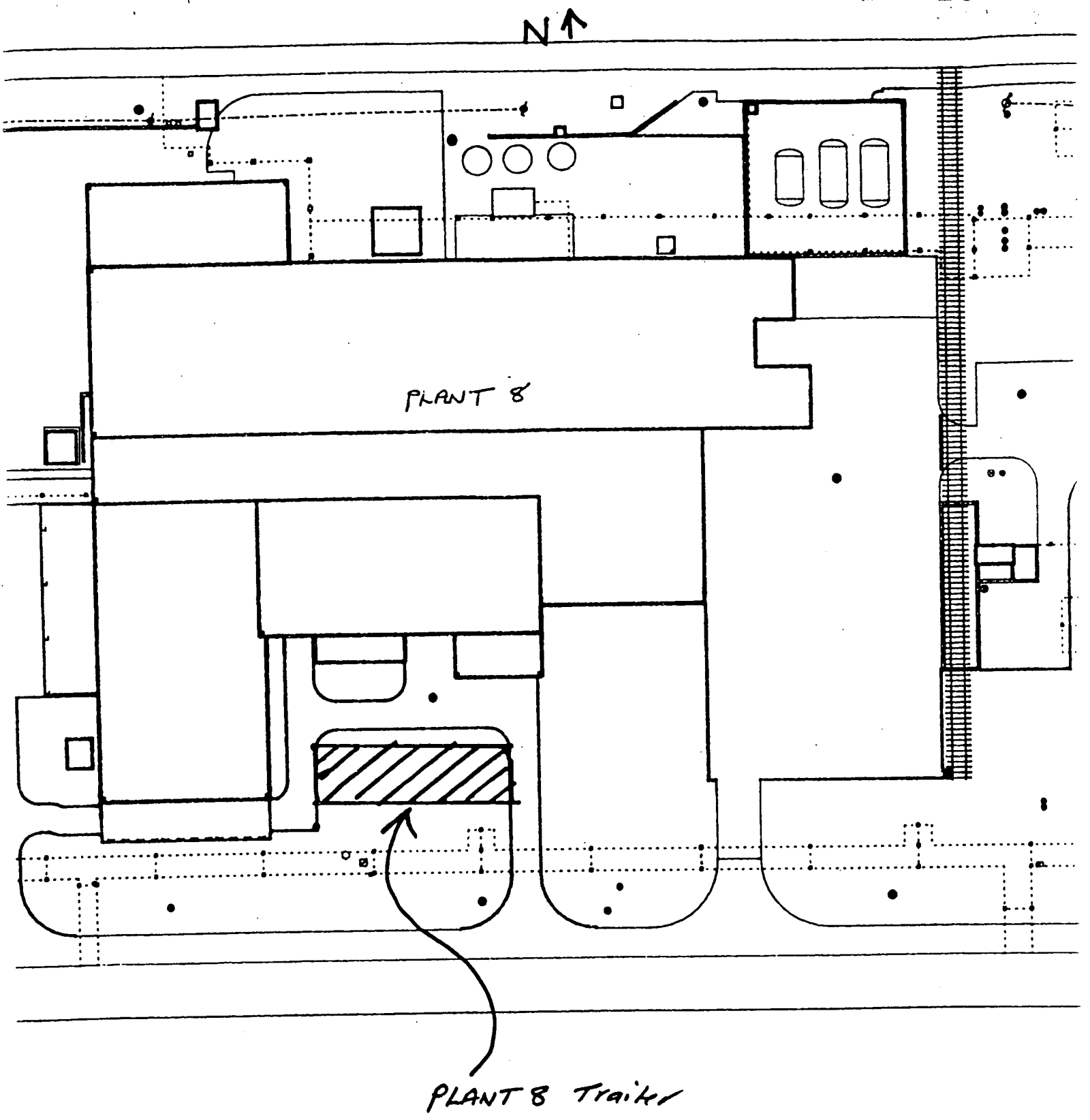
4824

FIGURE 4



0010

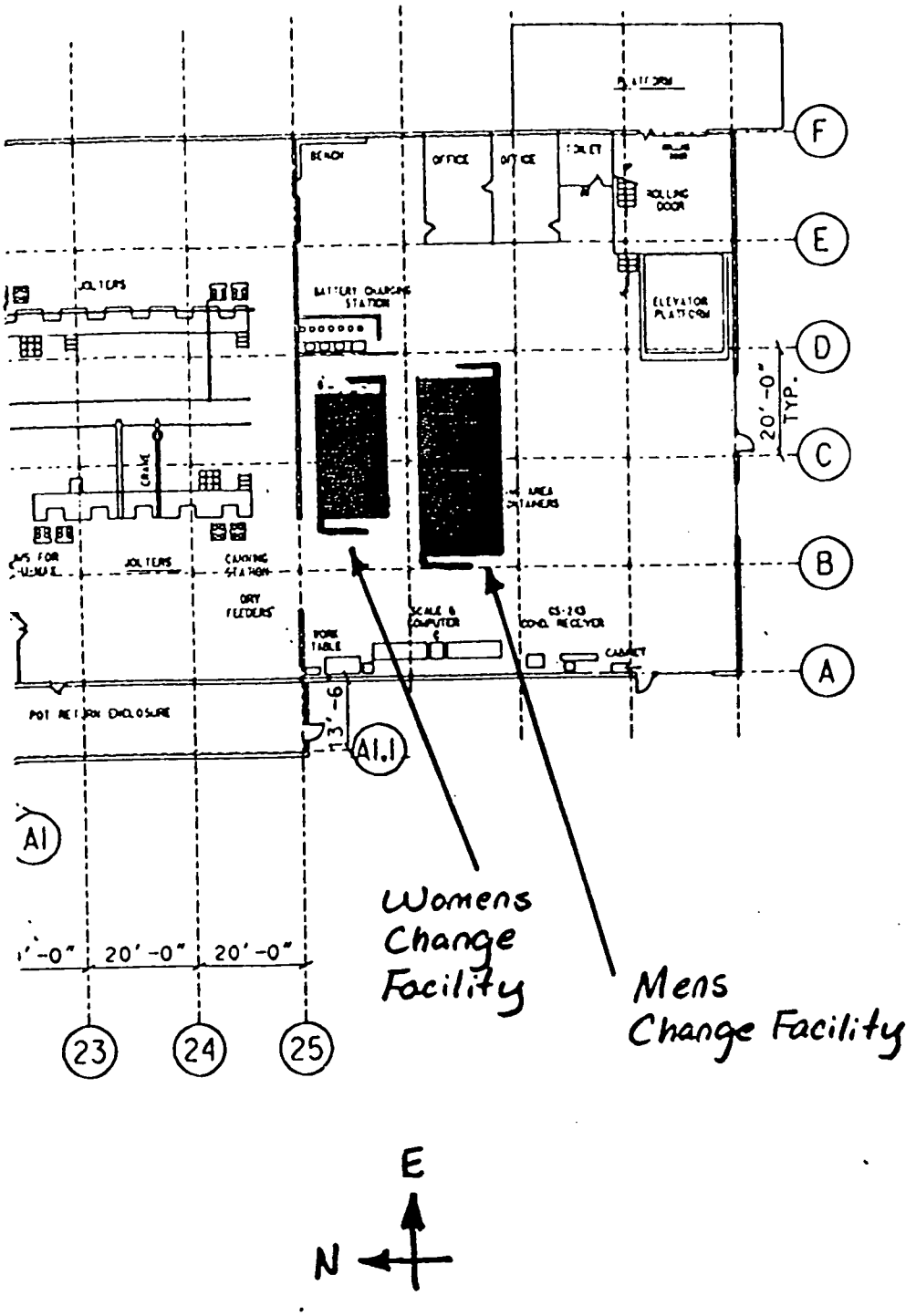
FIGURE 5 4824



0011

FIGURE 6

LOCATION OF INTERIOR CHANGE FACILITIES FOR PLANT 5



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IT CO. OF OHIO
ALD, OHIO

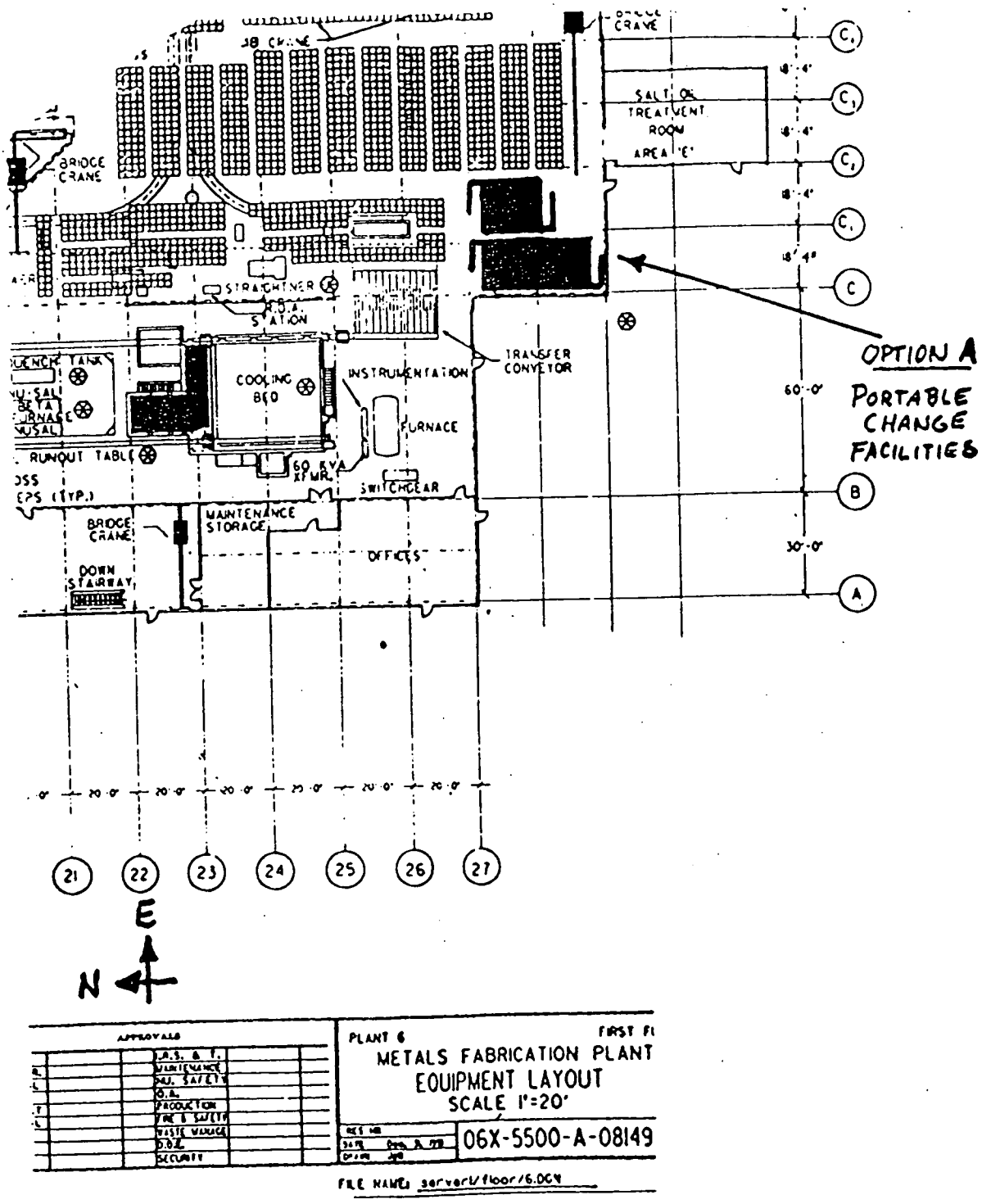
PLANT 5 FIRST FLOOR
METALS PRODUCTION PLANT
FLOOR PLAN

0012

FIGURE 7

LOCATION OF INTERIOR CHANGE FACILITIES FOR PLANT 6

4824



APPROVALS	PLANT 6 — METALS FABRICATION PLANT
U.A.S. & T.	EQUIPMENT LAYOUT
MAINTENANCE	SCALE 1"=20'
OU. SAFETY	06X-5500-A-08149
O.A.	
PRODUCTION	
FIRE & SAFETY	
WASTE MANAGE	
D.O.E.	
SECURITY	

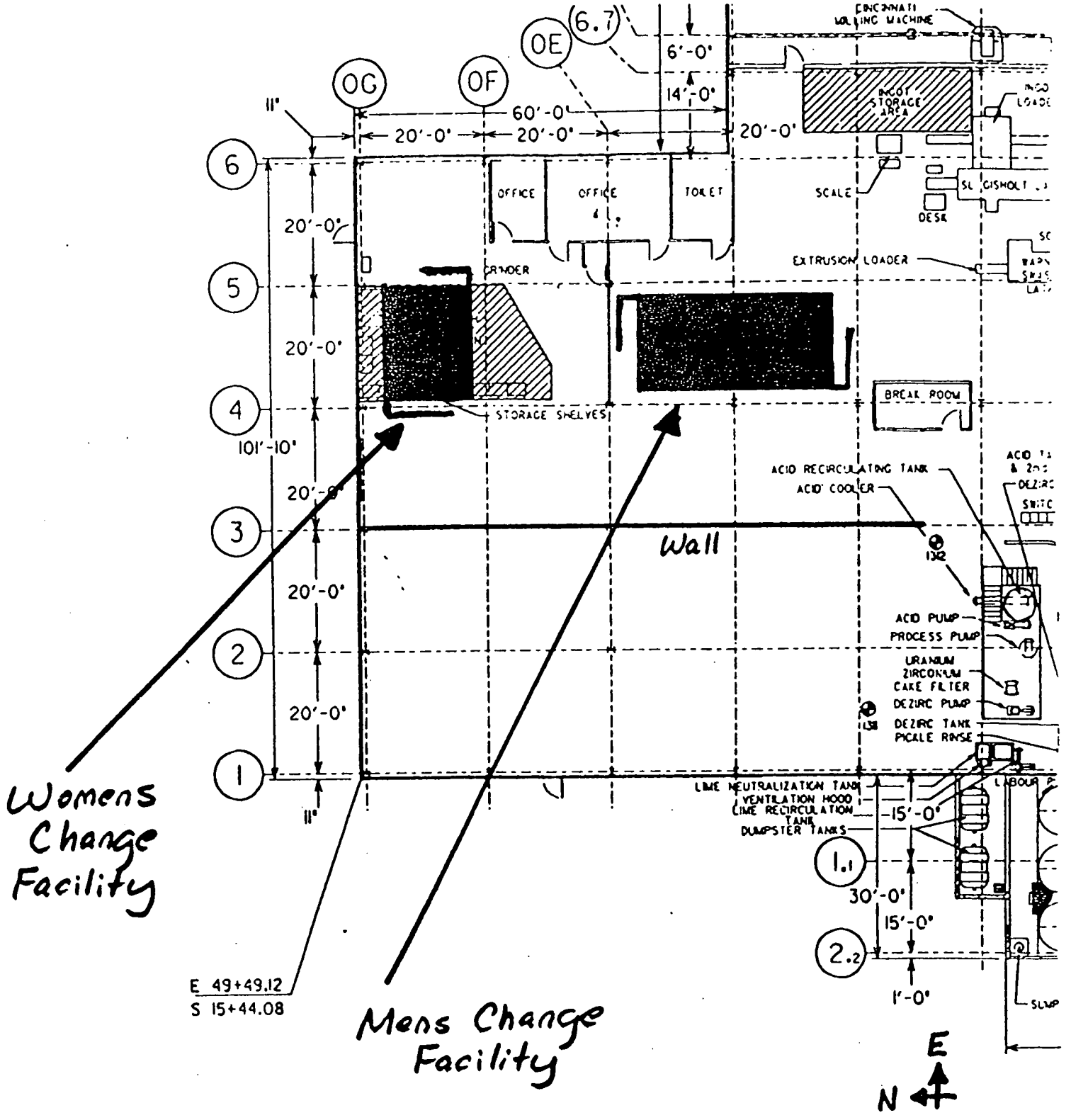
FILE NAME: server1/floor/6.DGN

0013

4824

FIGURE 8

LOCATION OF INTERIOR CHANGE FACILITIES FOR PLANT 9

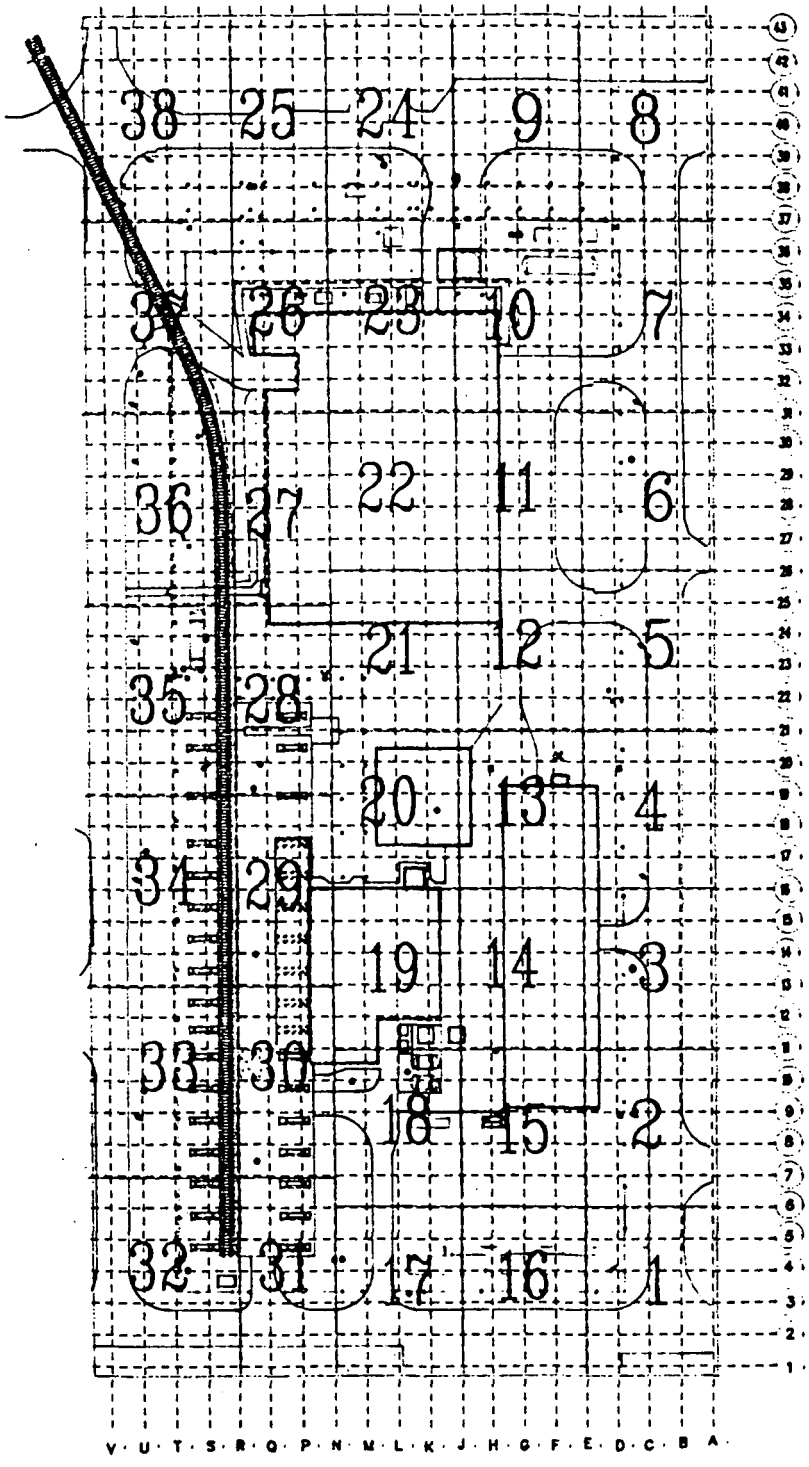


0014

FLOOR PLAN EL.15

GRID 13 OUTDOOR AREAS REFERENCE MAP

4824



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ATTACHMENT 2

RADIOLOGICAL SURVEY RESULTS

FMPC

INDUSTRIAL, RADIOLOGICAL SAFETY & TRAINING - RADIOLOGICAL SAFETY

4824

RADIOLOGICAL SURVEY REPORT

Date: 9-24-91	LOCATION: Grid 13, outdoors	RST: Linda Mayl Leslie A. Powell	Page 1 of 4
Time: 8:00 AM	LEVEL: 580'		

REASON FOR SURVEY: ☐ ROUTINE ☒ SPECIAL REQUEST ☐ RWP ☐ INCIDENT

COMMENTS: Process Area
Characterization of gravel, exterior bldg. surfaces, roadways, etc. in Grid 13. Map #17 (Used For Field Counting Smears)
MDA α = 220 ββ = 400

FOLLOW-UP SURVEY ATTACHED ☐ YES ☒ NO
SURVEY MAP ATTACHED ☒ YES ☐ NO

INSTRUMENTS

MODEL	SERIAL NUMBER	CALIBRATION DATE	BKRD.	EFF.
3BB	77119	2-92	250cpm	.1
3α	77143	2-92	0	.1
3BB/3α	77119/77143	2-92/2-92	60/0	.25/.09

ANALYZE FOR: ☑ ALPHA ☑ BETA-GAMMA ☐ OTHER

TYPE OF SURVEY: ☑ CONTAMINATION ☐ RADIATION ☐ OTHER

ITEM NUMBER	GRID COORDINATES	DESCRIPTION	CORRECTED DOSE RATE (mRem/hr) γ CONTACT	CORRECTED DOSE RATE (mRem/hr) β/γ CONTACT	CORRECTED DOSE RATE (mRem/hr) γ 3 FT.	CORRECTED DOSE RATE (mRem/hr) β/γ 3 FT.	DPM ALPHA 100 CM²	DPM ALPHA PROBE	DPM BETA-GAMMA 100 CM²	DPM BETA-GAMMA PROBE
1		GRAVEL						<200		K/K
2		"						<200		K/K
3		CONCRETE						<200		K/K
4		"						<200		K/K
5		GRAVEL						<200		K/K
6								<200		K/K
7								<200		K/K
8								<200		K/K
9								<200		K/K
10								<200		K/K
11								<200		K/K
12								<200		K/K
13		TAR ON CONCRETE						<200		K/K
14		CONCRETE						<200		K/K
15		GRAVEL						<200		K/K
16		"						<200		K/K

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3	Facility Supervisor

NOTIFICATION OF SURVEY RESULTS

SUPERVISOR NOTIFIED	TIME	DATE	NOTIFIED BY	REVIEWED BY	DATE
				0017	

GRID 13 outdoors Map #17

9/24/91 4824

8:00 AM

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FMPC

INDUSTRIAL, RADIOLOGICAL SAFETY & TRAINING - RADIOLOGICAL SAFETY

RADIOLOGICAL SURVEY REPORT (CONTINUATION SHEET)

ITEM NUMBER	GRID COORDINATES	DESCRIPTION	CORRECTED DOSE RATE (mRem/hr)				DPM ALPHA		DPM BETA-GAMMA	
			γ	β/γ	γ	β/γ				
			CONTACT	CONTACT	3 FT.	3 FT.	100 CM²	PROBE	100 CM²	PROBE
17		GRAVEL						<200		<1K
18		"						<200		<1K
19		CONCRETE						<200		<1K
20		"						<200		<1K
21		GRAVEL						<200		<1K
22		↓						<200		<1K
23		↓						<200		<1K
24		WOODEN RAIL						<200		<1K
25		WOODEN WALKWAY						<200		<1K
26		TRAILER WALL 5'up						<200		<1K
27		WOODEN RAIL						<200		<1K
28		STEPS.						<200		<1K
29		TRAILER WALL 2'up						<200		<1K
30		" " 3'up						<200		<1K
31		RUBBER WALKWAY						<200		<1K
32		" "						<200		<1K
33		CONCRETE						<200		<1K
34		"						<200		<1K
35		GRAVEL.						<200		<1K
*36		ELECTRIC MANHOLE					<MDA	400	<MDA	4.5K
37		SEAM IN CONCRETE						<200		<1K
*38		TELEPHONE MANHOLE					<MDA	1.5K	<MDA	4.5K
39		GRAVEL						<200		<1K
40		↓						<200		<1K
41		↓						<200		<1K
42		CONCRETE						<200		<1K
43		"						<200		<1K

- GRID 13, OUTDOORS Map #17
9/24/91
8:00 AM

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FMPC
INDUSTRIAL, RADIOLOGICAL SAFETY & TRAINING - RADIOLOGICAL SAFETY
RADIOLOGICAL SURVEY REPORT (CONTINUATION SHEET) -4824

ITEM NUMBER	GRID COORDINATES	DESCRIPTION	CORRECTED DOSE RATE (mRem/hr)				DPM ALPHA		DPM BETA-GAMMA	
			γ CONTACT	β/γ CONTACT	γ 3 FT.	β/γ 3 FT.	100 CM²	PROBE	100 CM²	PROBE
44		GRAVEL						<200		<1K
45		Trailer Wall 3'up						<200		<1K
46		GRAVEL						<200		<1K
47		"						<200		<1K
48		Trailer Hitch						<200		<1K
49		Trailer Wall 2'up						<200		<1K
50		GRAVEL						<200		<1K
*51		FENCE 2'up					<MDA	300	<MDA	<1K
52		Trailer Wall 3'up						<200		<1K
53		GRAVEL						<200		<1K
54		FENCE 3'up						<200		<1K
55		" 2'up						<200		<1K
56		GRAVEL						<200		<1K
57		Trailer Wall 2'up						<200		<1K
*58		" " "					<MDA	400	<MDA	<1K
59		GRAVEL						<200		<1K
60		FENCE 3'up						<200		<1K
61		Post going across FENCE						<200		<1K
62		GRAVEL						<200		<1K
63		ASPHALT						<200		<1K
64		CONCRETE						<200		<1K
65		GRAVEL						<200		<1K
66		FENCE 3'up						<200		<1K
67		" "						<200		<1K
68		GRAVEL						<200		<1K
69		"					0019	<200		<1K
70		" "						<200		<1K

GRID 13, Outdoors Map #17

9/24/91 8:00 AM

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FMPC

INDUSTRIAL, RADIOLOGICAL SAFETY & TRAINING - RADIOLOGICAL SAFETY

RADIOLOGICAL SURVEY REPORT (CONTINUATION SHEET)

ITEM NUMBER	GRID COORDINATES	DESCRIPTION	CORRECTED DOSE RATE (mRem/hr)				DPM ALPHA		DPM BETA-GAMMA	
			γ CONTACT	β/γ CONTACT	γ 3 FT.	β/γ 3 FT.	100 CM²	PROBE	100 CM²	PROBE
71		GRAVEL						<200		<1K
72		"						<200		<1K
73		CRACK IN ASPHALT						<200		<1K
74		" "						<200		<1K
75		ASPHALT						<200		<1K
76		GRAVEL						<200		<1K
77		↓						<200		<1K
78		↓						<200		<1K
79		↓						<200		<1K
80		↓						<200		<1K
81		GRAVEL						<200		<1K
82		"						<200		<1K

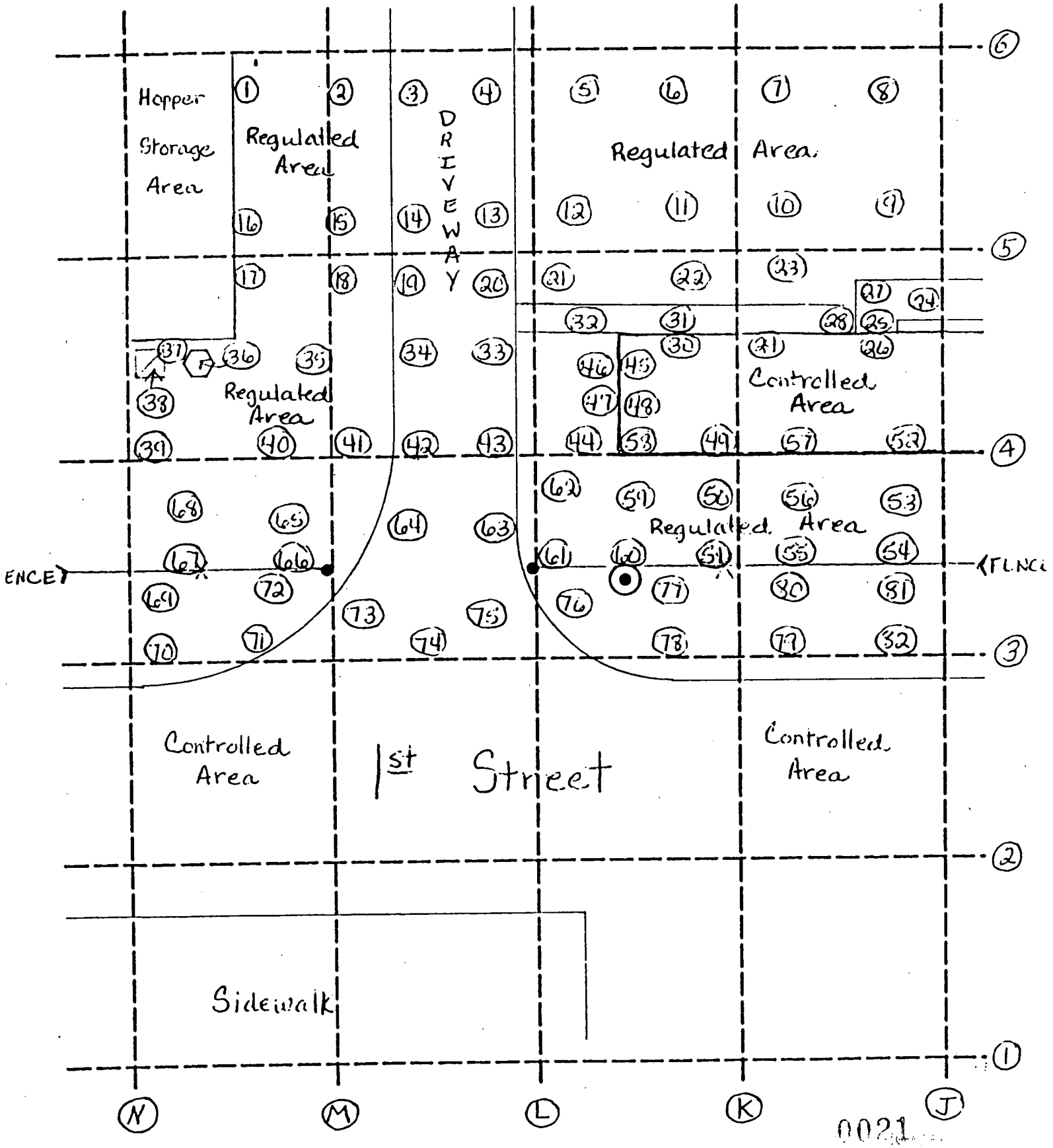
GRID 13, MAP # 17

9/24/91

OUTDOOR AREAS

4824

All areas characterized on this map are regulated areas unless otherwise noted.



48824

FMPO

INDUSTRIAL, RADIOLOGICAL SAFETY & TRAINING - RADIOLOGICAL SAFETY

RADIOLOGICAL SURVEY REPORT

Date: 9.24.91	LOCATION: Grid #13, Outdoors	RST: G. Stevens #6148	Page 1 of 7
Time: ~9:00	LEVEL: 580'	Chris Havens #6263	

REASON FOR SURVEY: ☐ ROUTINE ☑ SPECIAL REQUEST ☐ RWP ☐ INCIDENT

COMMENTS:

Process Area Characterization of Map #16. NAD: Not able to determine. ND: none determined.

See pg. 7 for smear counting info.

INSTRUMENTS

MODEL	SERIAL NUMBER	CALIBRATION DATE	BKRD.	EFF.
Ludlum #3	44209	9.91	0	0.1
Ludlum #3	77178	10.91	30→>300	0.1

ANALYZE FOR: ☑ ALPHA ☑ BETA-GAMMA ☐ OTHER

FOLLOW-UP SURVEY ATTACHED ☐ YES ☑ NO

SURVEY MAP ATTACHED ☑ YES ☐ NO

TYPE OF SURVEY: ☑ CONTAMINATION ☐ RADIATION ☐ OTHER

ITEM NUMBER	GRID COORDINATES	DESCRIPTION	CORRECTED DOSE RATE (mRem/hr) γ CONTACT	CORRECTED DOSE RATE (mRem/hr) β/γ CONTACT	CORRECTED DOSE RATE (mRem/hr) γ 3 FT.	CORRECTED DOSE RATE (mRem/hr) β/γ 3 FT.	DPM ALPHA 100 CM²	DPM ALPHA PROBE	DPM BETA-GAMMA 100 CM²	DPM BETA-GAMMA PROBE
1		Gravel Area						ND		ND
2								ND		ND
3								ND		ND
4								ND		ND
5								ND		ND
6								ND		ND
7								ND		ND
8								ND		ND
9								ND		ND
10								ND		ND
11								ND		ND
12								ND		ND
13								ND		ND
14								ND		ND
15								ND		ND
16								ND		ND

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NOTIFICATION OF SURVEY RESULTS

SUPERVISOR NOTIFIED	TIME	DATE	NOTIFIED BY	REVIEWED BY	DATE

Grid #13, Outdoors Process Area, Map #16
4829 9-4-91
pg 2 of 7

FMPC

INDUSTRIAL, RADIOLOGICAL SAFETY & TRAINING - RADIOLOGICAL SAFETY

RADIOLOGICAL SURVEY REPORT (CONTINUATION SHEET)

ITEM NUMBER	GRID COORDINATES	DESCRIPTION	CORRECTED DOSE RATE (mRem/hr) γ CONTACT	β/γ CONTACT	γ 3 FT.	β/γ 3 FT.	DPM ALPHA 100 CM²	DPM ALPHA PROBE	DPM BETA-GAMMA 100 CM²	DPM BETA-GAMMA PROBE
17		Gravel Area						ND		ND
18		↓						ND		ND
19		↓						ND		ND
20		↓						ND		ND
21		↓						ND		ND
22		↓						ND		ND
23		↓						ND		ND
24		↓						ND		ND
25		↓						ND		ND
26		↓						ND		ND
27		↓						ND		ND
28		↓						ND		ND
29		↓						ND		ND
30		↓						ND		ND
31		↓						ND		ND
32		↓						ND		ND
33		↓						ND		ND
34		↓						ND		ND
35		↓						ND		ND
36		↓						ND		ND
37		↓						ND		ND
38		↓						ND		ND
39		↓						ND		ND
40		↓						ND		ND
41		↓						ND		ND
42		↓						ND		ND
43		↓						ND		ND

Grid #13 outdoors
Process Area Map #16
9.24.91
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FMPC

INDUSTRIAL, RADIOLOGICAL SAFETY & TRAINING - RADIOLOGICAL SAFETY

RADIOLOGICAL SURVEY REPORT (CONTINUATION SHEET)

ITEM NUMBER	GRID COORDINATES	DESCRIPTION	CORRECTED DOSE RATE (mRem/hr)				DPM ALPHA		DPM BETA-GAMMA	
			γ CONTACT	β/γ CONTACT	γ 3 FT.	β/γ 3 FT.	100 CM²	PROBE	100 CM²	PROBE
44		Gravel Area						~D		~D
45								~D		~D
46								~D		~D
47								~D		~D
48								~D		~D
49								~D		~D
50								~D		~D
51								~D		~D
52								~D		~D
53								~D		~D
54								~D		~D
55								~D		~D
56								~D		~D
57								~D		~D
58								~D		N/A
59								~D		~D
60								~D		~D
61								~D		~D
62								~D		~D
63								~D		~D
64								~D		~D
65								~D		~D
66								~D		~D
67								~D		~D
68								~D		~D
69	0024							~D		N/A
70								~D		N/A

Process Area map# 16
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FMPC

INDUSTRIAL, RADIOLOGICAL SAFETY & TRAINING - RADIOLOGICAL SAFETY

RADIOLOGICAL SURVEY REPORT (CONTINUATION SHEET)

ITEM NUMBER	GRID COORDINATES	DESCRIPTION	CORRECTED DOSE RATE (mRem/hr) γ CONTACT	β/γ CONTACT	γ 3 FT.	β/γ 3 FT.	DPM ALPHA 100 CM²	DPM ALPHA PROBE	DPM BETA-GAMMA 100 CM²	DPM BETA-GAMMA PROBE
71		Gravel						ND		ND
72		↓						ND		ND
73								ND		ND
74								ND		ND
75								ND		ND
76								ND		ND
77								ND		ND
78								ND		1.2k
79								ND		<1k
80								ND		ND
81								ND		ND
82								ND		<1k
83								ND		ND
84								ND		ND
85								ND		ND
86								ND		<1k
87								<.2k		1.5k
88								ND		ND
89								ND		<1k
90								ND		ND
91								ND		ND
92		↓						ND		<1k
93		Trailer wall, 1.2 [illegible]						ND		ND
94		↓						ND		ND
95								ND		ND
96								ND		ND
97		↓						ND		ND

0025

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Grid 15 Outdoors
Process Area Map #6
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FMPC
INDUSTRIAL, RADIOLOGICAL SAFETY & TRAINING - RADIOLOGICAL SAFETY
RADIOLOGICAL SURVEY REPORT (CONTINUATION SHEET)

ITEM NUMBER	GRID COORDINATES	DESCRIPTION	CORRECTED DOSE RATE (mRem/hr) γ CONTACT	CORRECTED DOSE RATE (mRem/hr) β/γ CONTACT	CORRECTED DOSE RATE (mRem/hr) γ 3 FT.	CORRECTED DOSE RATE (mRem/hr) β/γ 3 FT.	DPM ALPHA 100 CM²	DPM ALPHA PROBE	DPM BETA-GAMMA 100 CM²	DPM BETA-GAMMA PROBE
98		Grey surface band 1.5m						ND		ND
99		Grey surface box on band						<.2K		ND
100		Wall, 1.2 m up						ND		ND
101		Wall, 1 m up						ND		ND
102		"						ND		ND
103		Wall, 1.2 m up						ND		ND
104		Wall, 1 m up						ND		ND
105		Window walkway (mesh)						ND		ND
106		Ig at East door						ND		<1K
107		wire						ND		ND
108		Hand rail						ND		ND
109		wire						ND		ND
110		Hand Rail						ND		ND
111		Wall 1 m up					<MDA	.2K	<MDA	ND
112		↓					<MDA	.2K	<MDA	ND
113							<MDA	<.2K	<MDA	ND
114								<.2K		ND
115								ND		ND
116								ND		ND
117		Trailer Hitch						ND		ND
118		Wall 1 m up					<MDA	ND	<MDA	ND
119		↓						.2K		ND
120								<.2K		ND
121								ND		ND
122								ND		ND
123								<.2K		ND
124	0026						<MDA	.3K	<MDA	<1K

Gravels Cuttings
Process Area Map #16
9-25-91

FMPC

INDUSTRIAL, RADIOLOGICAL SAFETY & TRAINING - RADIOLOGICAL SAFETY

RADIOLOGICAL SURVEY REPORT (CONTINUATION SHEET)

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ITEM NUMBER	GRID COORDINATES	DESCRIPTION	CORRECTED DOSE RATE (mRem/hr) γ CONTACT	β/γ CONTACT	γ 3 FT.	β/γ 3 FT.	DPM ALPHA 100 CM²	DPM ALPHA PROBE	DPM BETA-GAMMA 100 CM²	DPM BETA-GAMMA PROBE
125		WWW						ND		ND
126		"						ND		<1K
127		"						ND		ND
128		Hand Rail						ND		ND
129		WWW						ND		ND
130		fence post					<MDA	.6K	<MDA	2K
131		fence wire					<MDA	<.2K	<MDA	1K
132		fence post					<MDA	.2K	<MDA	3.5K
133		fence wire						<.2K		1.8K
134		fence post					<MDA	1.2K	<MDA	3.5K
135		fence wire						<.2K		<1K
136		fence post					<MDA	1K	<MDA	3.5K
137		fence wire						ND		<1K
138		fence post					<MDA	2K	<MDA	2.5K
139		concrete fence post base					<MDA	.5K	<MDA	21K
140		fence wire						ND		ND
141		fence post					<MDA	1K	<MDA	2K
142		concrete base					<.2K	ND	<MDA	19K
143		fence wire						ND		ND
144		fence post					<MDA ~~.2K~~	.8K	<MDA	2K
145		concrete base					<MDA	.5K	<MDA	9K
146		Gravel						ND		ND
147		↓						ND		ND
148								ND		ND
149								ND		ND
150								ND		ND
151								ND		ND

0007

Process Bldg Bldg #6
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INDUSTRIAL, RADIOLOGICAL SAFETY & TRAINING - RADIOLOGICAL SAFETY

RADIOLOGICAL SURVEY REPORT (CONTINUATION SHEET)

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ITEM NUMBER	GRID COORDINATES	DESCRIPTION	CORRECTED DOSE RATE (mRem/hr) γ CONTACT	CORRECTED DOSE RATE (mRem/hr) β/γ CONTACT	CORRECTED DOSE RATE (mRem/hr) γ 3 FT.	CORRECTED DOSE RATE (mRem/hr) β/γ 3 FT.	DPM ALPHA 100 CM²	DPM ALPHA PROBE	DPM BETA-GAMMA 100 CM²	DPM BETA-GAMMA PROBE
152		Trowel						ND		ND
153								ND		ND
154								ND		ND
155								ND		<1K
156								ND		1K
157								ND		ND
158								ND		ND
159								ND		ND
160								ND		<1K
161								ND		<1K
162								ND		ND
163								ND		ND
164								ND		<1K
165								ND		<1K
X		X						X		
167								ND		
	α Instrument	Bx Instrument								
	Model #3	Model #3								
	S/N: 77143	S/N: 77119								
	cal. due = 2-92	cal. due = 2-92								
	Bkg = 0	Bkg = 60								
	ET = .09	ET = .25								
	MDA = 222	MDA = 400								
	0028									

GRID 13, MAP # 11e

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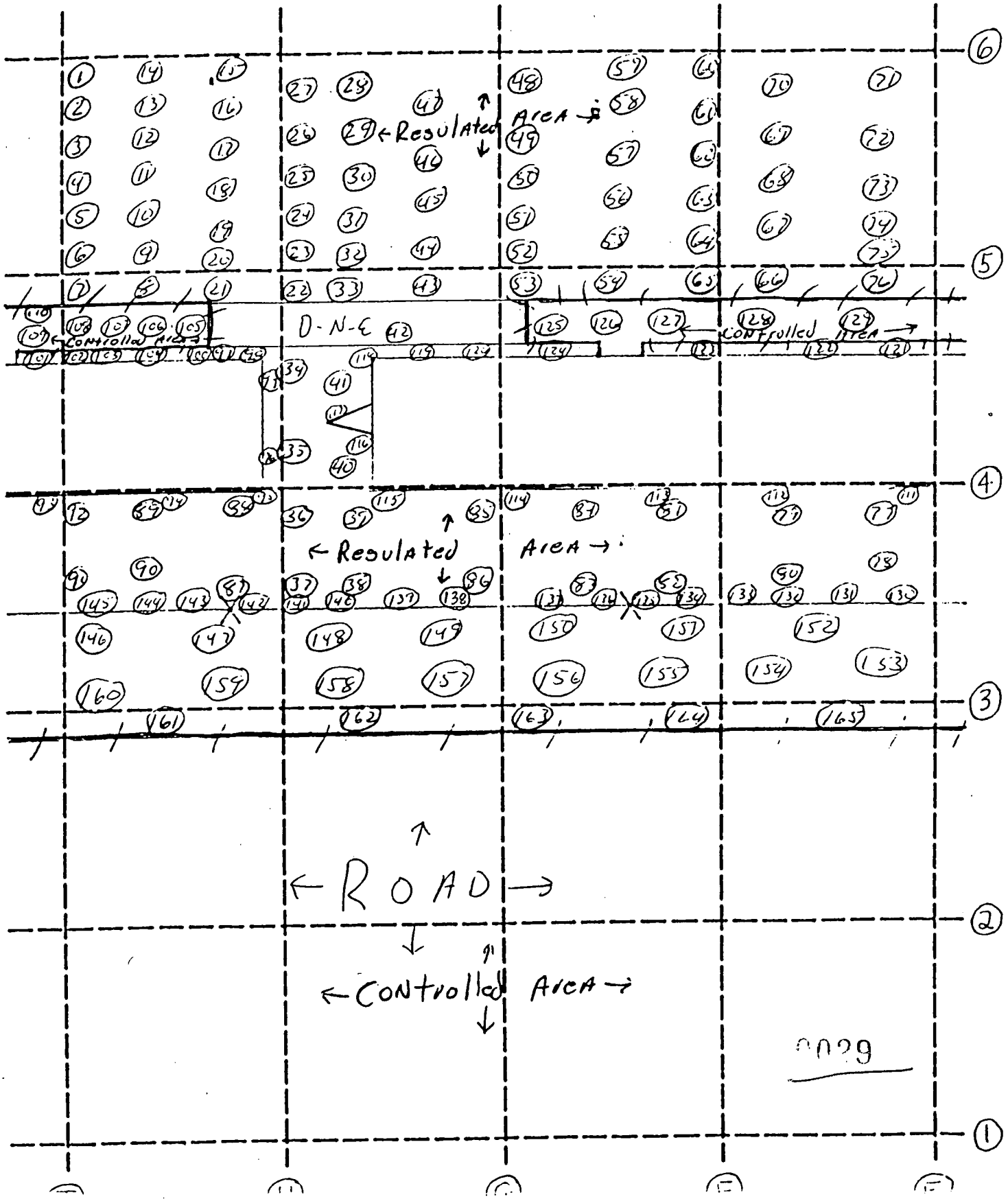
OUTDOOR AREAS 9-25-91



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